

# Ardo Corporate Responsibility Report

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We preserve nature's precious gifts

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Whenever we open a newspaper or switch on a television these days, there is a good chance that we will see something about global warming, rising sea levels, depletion of the earth's resources, increasing CO<sub>2</sub> levels, population growth and the anticipated food, energy and water shortages that will occur as a result of all these things.

At Ardo we have been working for years - **measuring and monitoring**, and investing in more efficient equipment and techniques - to reduce the resources that we use, the by-products, waste and emissions that we create. We have also invested considerable time and money in **enhancing the working environment for our employees**

to ensure that they can always perform at their best in **safe and comfortable surroundings**. Our approach is not only good for the planet and good for our people; it also makes good economic sense to continually strive to become better and more efficient at what we do.

Ardo is a **green business that is committed to its workforce** and we have a good story to tell. This document is Ardo's first annual Corporate Responsibility Report which sets out the evolution of the business's activities in the areas of its people, the planet and the profitable production of healthy, sustainable food that is available and affordable to everyone.

Ardo Management Committee



# PLANET

## EVOLUTION 2008 - 2009

We constantly work to improve our operating efficiency in every area of the business.



We have delivered the following results through our investments in more efficient equipment and techniques, combined with increasing employee awareness in energy use reduction:

This reduction corresponds to an average yearly electricity consumption of 1,300 families.



## ELECTRICITY

The electricity used (kWh/T) to freeze and store every tonne of frozen vegetables in the Ardo group

reduced by 2.4%

between 2008 and 2009



## FUEL

In the same period the fuel (oil + gas) used (Kwh/T) was

reduced by 10%

This reduction corresponds to the average yearly fuel consumption of 750 cars.



## WATER

Our water use (m<sup>3</sup>)

reduced by 3%

This reduction corresponds to a person taking 1.5 million showers in 1 year.

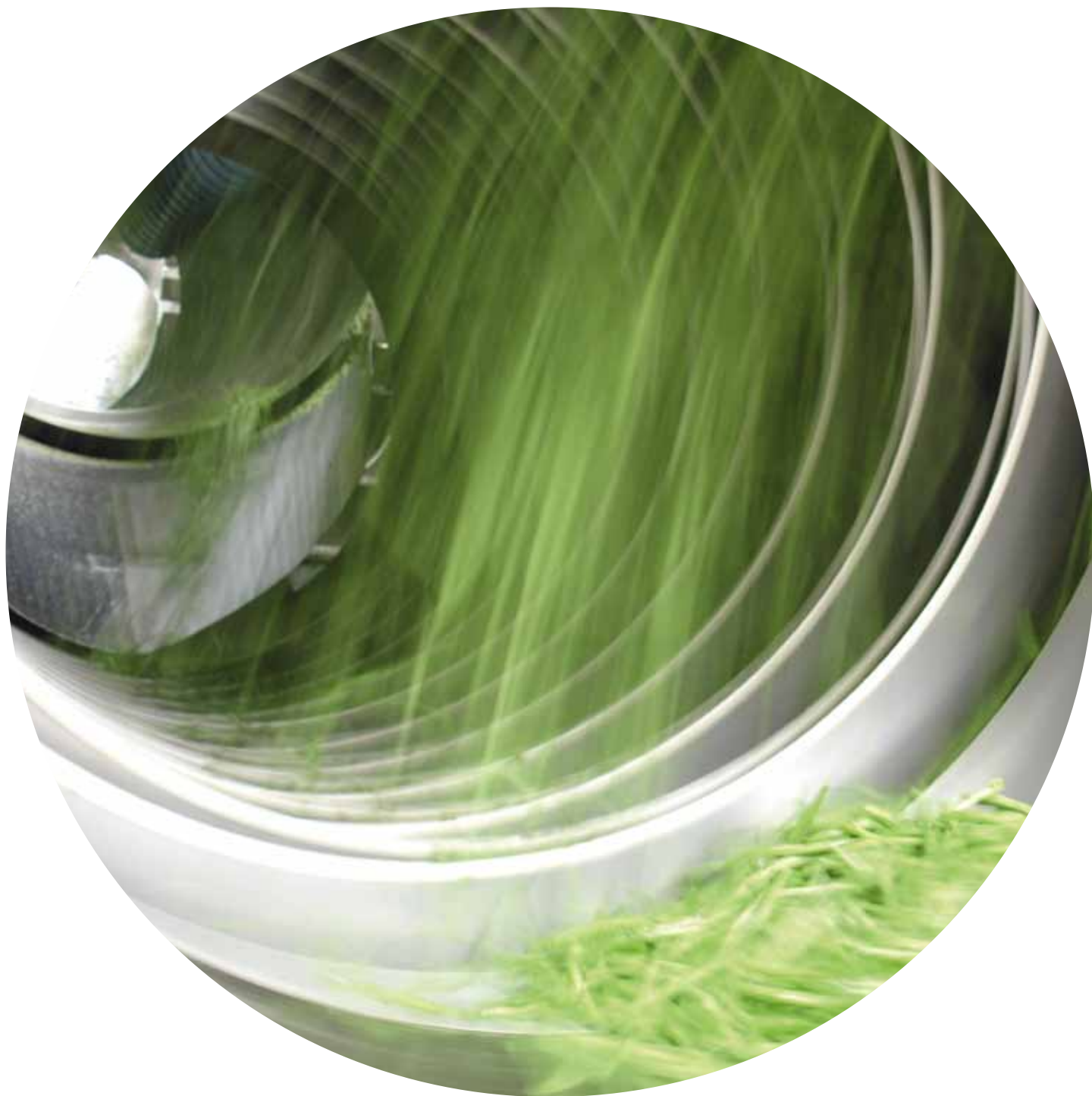




# PLANET

## INVESTMENTS / PROJECTS TO IMPROVE OPERATING EFFICIENCY

A number of projects are underway, or have recently been completed, that should lead to a significant reduction in resources used in the coming years. Investments in this domain are very often supported by economic reasoning that should also improve the long-term viability of Ardo's business.



## Reducing pesticide use

We are reducing the amount of plant protection products that are used in the growing of our crops, by improving insect and disease monitoring and by using spray thresholds.



## Producing energy from vegetable waste

Investments are planned at Ardo's two Belgian factories to construct Biomethanisation plants that can capture the gas produced from the fermentation of vegetable by-products and convert it into electricity.



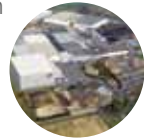
## Reducing packaging waste

We are making savings on both film and carton thickness that should lead to significant reductions in packaging waste, by working with our packaging suppliers to achieve improved film strength and higher compression strength on cartons.



## More efficient cold storage

New cold stores have recently been completed at Ardo factories in Spain, Belgium and the UK. The improved insulation and cooling systems in these cold stores, combined with their more efficient pallet locating systems will deliver energy savings of up to 40%.



## Improving transport efficiency

Packed products tend to be light and bulky and in most cases trucks are full long before they reach their legal weight limit. We are currently reviewing all packaging dimensions, pallet sizes and internal trailer heights in order to get more weight of packed product on each truck. More effectively filled trucks will mean less road miles per kilogram of product delivered.



## Using waste heat to warm our offices

The heat from the compressors used in our cooling process was lost to the atmosphere through the condensers. An ingenious system has been introduced to capture this heat and now provides all the heating for Ardo's head office in Ardooie, Belgium.



## Intelligent use of water

We collect the rain water that falls on our factory roofs and store it in reservoirs. After treatment this water is used in cleaning our factories and also in our condensers. The tap water required for our blanchers is recycled and then used for pre-washing fresh vegetables. It is then cleaned and used to irrigate the vegetable crops surrounding our factories.



## Lighting

LED lighting that uses a fraction of the energy of fluorescent lights is being trialed at a number of Ardo sites. The outside lighting around our factories is under constant review by our engineers, to ensure that it operates with maximum efficiency whilst causing the minimum of light pollution for our neighbours.



## Less noise

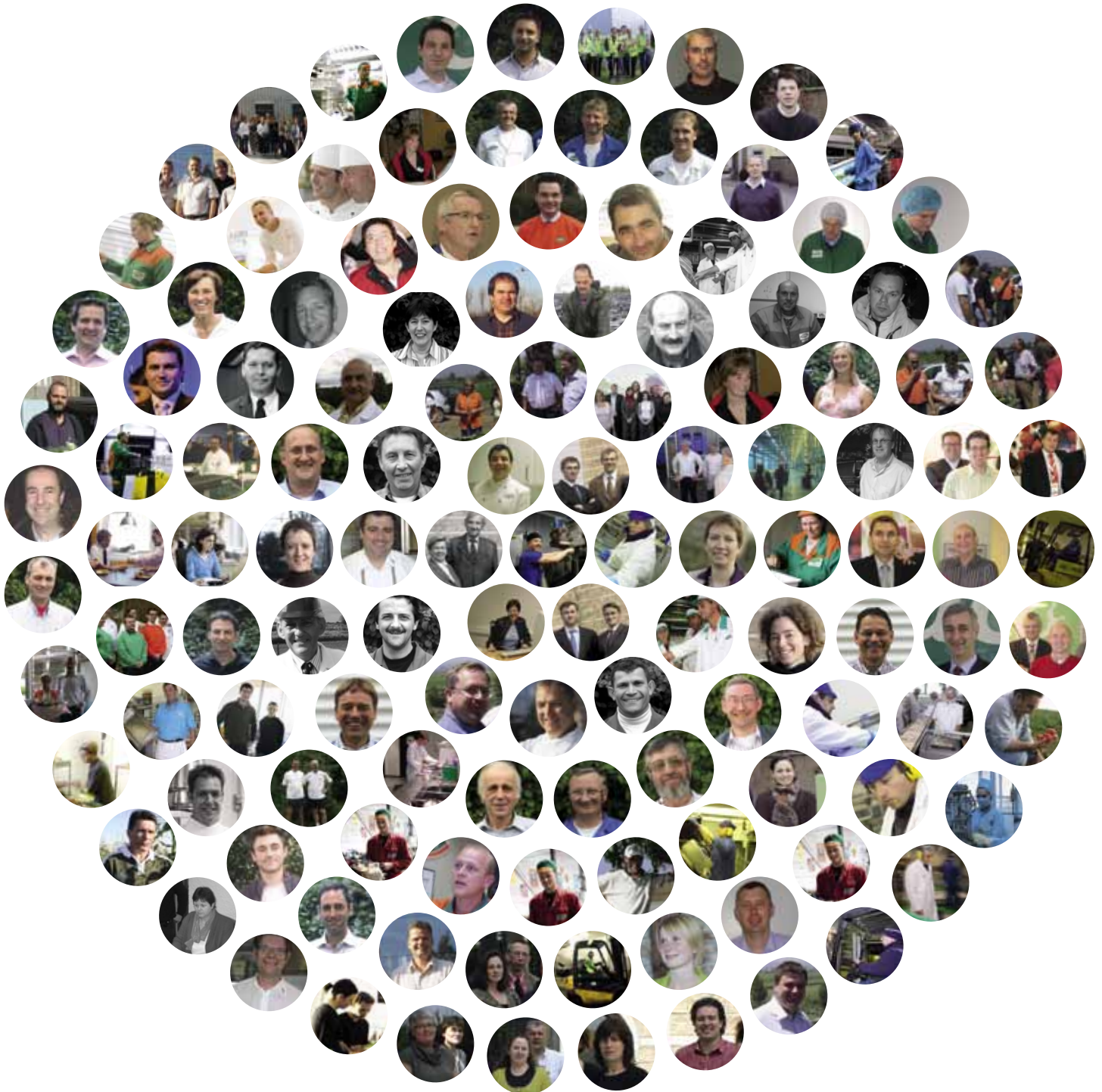
Another effort that we are making for the benefit of the environment, employees and our neighbours is to reduce the level of noise in our operations. We are investing in low-noise condensers, in acoustic insulation of our machine rooms and we perform loading and unloading during normal working hours wherever possible.



# PEOPLE

OUR PEOPLE ARE OUR MOST IMPORTANT ASSET ...

... and our success depends on them!





Machines in the food industry are similar throughout the world, but it is the people operating them and working in the different departments that make the difference!

We set out to attract and to hire the best people. We strive to retain our skilled workforce and support their development so that they can add value to our business.

The majority of our colleagues stay with the company for most of their career.

We operate in a green environment and our products are natural, healthy and safe. Environment however, is not limited to nature. It means much more than that. It also refers to the **Ardo working environment**, where our priority is to provide a safe and healthy work place in an atmosphere that stimulates respect, individual development and recognition.

Accident frequency reduced by 30% from 2008 to 2009 and initiatives are taken at both group and local levels to ensure that it continues to reduce even further.

To Ardo, **sustainable HR Management** means conducting our business in a responsible way with respect and long-term focus. Respect starts with management by example. Our managers are asked to follow our code of conduct and to respect the talent and ambition of our employees. With our performance management process, we aim to provide a platform for open discussion, and through training and development programmes, we aim to enhance the competences of our employees.

Local initiatives that focus on our employees has led to a 6% reduction in absenteeism from 2008 to 2009.

**Open communication** is typical for the Ardo group. Our management structure is very flat and the doors are always open. In our Ardo employee newsletter, we inform our employees about things that are happening within the group and at our sites in the different countries where we operate. There are also lots of local country initiatives and communication featuring events and personnel information.

We have our “feet firmly on the ground”, following a practical approach without formalities. This enables everyone to contribute their ideas for improvement and be part of Ardo!

# PRODUCTS

SUSTAINABLE PRODUCTION OF HEALTHY FOOD,  
AVAILABLE TO EVERYONE AND AFFORDABLE BY EVERYONE



Over the last 100 years, there have been great advances in the technology of crop production, such as the breeding and selection of higher yielding crop varieties and the development of irrigation, fertilizer and plant protection products. Over the same period, the world's population has risen to almost four times the size that it was at the start of the 20th century<sup>1</sup>.

With global population growth set to continue, scientists are predicting that by 2030 the world's water needs will rise by 30%<sup>2</sup>, the demand for energy will go up by 50%<sup>3</sup> and global food requirements will increase by 50%<sup>4</sup>.

Securing future food supplies is rapidly becoming a 'hot topic' and national governments are actively setting their priorities for food for the next two decades.

Most governments have identified the following as priorities:

- 1. Aim to achieve a low carbon food chain**
- 2. Reduce the impact of food production & consumption**
- 3. Reduce storage losses**
- 4. Improve the quality of food for healthy eating**
- 5. Improve availability, affordability and accessibility of food**
- 6. Reduce waste**

Frozen fruit & frozen vegetables are perfectly placed to meet these challenges!

<sup>1</sup> United Nations Department of Economic and Social Affairs (2008)

<sup>2</sup> International Food Policy Research Institute (IFPRI)

<sup>3</sup> International Energy Agency (IEA)

<sup>4</sup> Food and Agriculture Organization (FAO)



# PRODUCTS



## 1. Aim to achieve a low carbon food chain

When comparing the carbon footprint of the fresh produce supply chain against that of the frozen equivalent, invariably the frozen comes off better. Research was recently commissioned by Ardo (carried out by an independent Dutch consultant on sustainable food and agriculture) into the level of greenhouse gas emissions produced during the growing and processing of frozen spinach versus those produced during the growing, transport and packing of fresh spinach. The research found that spinach grown and frozen in the Netherlands created less than half the quantity of the greenhouse gases that were produced during growing, transporting and packing fresh spinach from the countries supplying the Netherlands during the course of the year. (The Netherlands procures fresh spinach from the Netherlands, Germany, Belgium and Spain) The above research is just one example, but there are many other cases where 'frozen' is expected to outclass 'fresh' in the carbon stakes.

## 2. Reduce the impact of food production & consumption

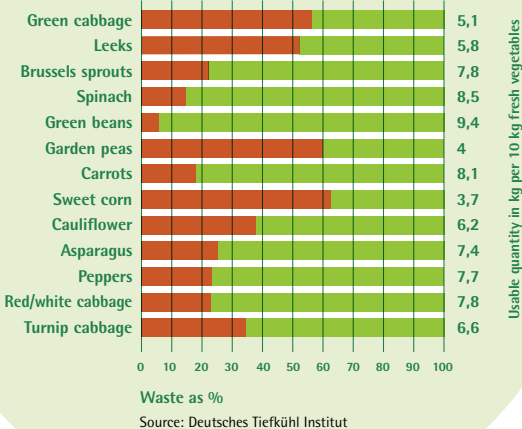
### Seasonal Production:

Ardo's frozen fruit & vegetables are harvested from seasonally produced, outdoor crops that are ripened by the sun during the crop's natural and optimal cropping period. In most cases these crops provide valuable break crops in arable rotations. Unlike in the fresh produce sector, glass houses, polythene covers and plant protection products are not used as tools to extend cropping seasons.

### Efficient transport and no waste to land fill:

With frozen fruit and vegetables there are no unwanted skin, leaves or core transported and no food-waste sent to landfill. Ardo's fruit & vegetables are produced locally within easy reach of our freezing factories. At the point of delivery to customers, all unusable parts of the plants (outer leaves, stalk, skin, etc.) have been removed so that only consumable elements are transported and taken home by the consumer. In the case of cauliflower, the wrapper leaves and core (which represent +/- 50% of the weight of a fresh cauliflower) are left in the field delivering natural nutrients to the crop. In the case of pineapple, the skin and core (representing 70% of the weight of a fresh pineapple) are trimmed off at the factory and are used for animal feed.

Waste and useable quantity with fresh vegetables (average)





### Putting something back:

For healthy growth, fruit and vegetable crops require Nitrogen (N), Phosphorus (P) and Potassium (K) to grow.

**Nitrogen:** In modern arable farming, nitrogen is mostly delivered via artificial nitrogen fertilisers that require vast amounts of energy to produce and can be readily leached by rain water through the soil layers, away from the crop's rooting zone, and into the groundwater. An alternative and green source of nitrogen is produced by leguminous crops (peas and beans) which fix nitrogen from the air in the soil and reduce the need for chemical fertiliser in both the current and following crops. Around 66% of Ardo's vegetable growing area is in leguminous crops, and each year Ardo puts enough naturally produced 'N' into the soil to grow the majority of its remaining non-leguminous crops. Ardo is on the way to becoming a **Nitrogen Neutral business!**

**Phosphorus and Potassium:** The residues from our waste water treatment plants (solids from vegetable washing and processing) are rich in both Phosphorus and Potassium. We return this sludge in a controlled way to our farmers who then apply it to their soils to reduce the amount of purchased P and K that they require.

## 3. Reduce storage losses

Ardo's fruit & vegetables are frozen on the day of harvest (peas often within 2½ hours) and are stored at -18°C. There are no product losses due to deterioration during storage at the producer, at the retailer or in the consumer's home.

## 4. Improve the quality of food for healthy eating

Fresh fruit & vegetables start losing nutrients the moment they are harvested (research shows fresh green beans lose 40% of their vitamin C within 3 days at 4°C) and continue to lose them right up until the point they are eaten – commonly 3 to 5 days later. With Ardo's frozen fruit and vegetables, the nutrients and product quality are locked in at the time of freezing.

Frozen fruit & vegetables can play a crucial role in a 'Five-a-Day' programme<sup>5</sup>.

## 5. Improve availability, affordability and accessibility of food

Ardo's frozen fruit & vegetables offer seasonal, affordable produce at any time of the year in easy to prepare, portioned formats.

## 6. Reduce waste

With an estimated one third of all food being thrown away in recent years, frozen fruit & vegetables can provide a reliable way to reduce food waste. Frozen produce is sold in a ready-to-use form, pre-peeled and pre-cut, meaning that there is no need for any losses during preparation at home. Stored in home freezers, food is taken out and used as required so never becomes over-ripe or rotten.

<sup>5</sup> Five-a-day programme launched by the World Health Organisation, Geneva, 2003





Ardo alone will not turn the tide of global warming, the population growth or the water and food shortages predicted by world leaders.

However, as a market-leading European food business, Ardo has a role to play and is passionate about managing resources in a sustainable way - this is reflected in our motto:

‘We preserve nature’s precious gifts’



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